

**Original article**

# EMERGENCY CONTRACEPTION: A STUDY TO ASSESS KNOWLEDGE, ATTITUDE AND PRACTICES AMONG FEMALE COLLEGE STUDENTS IN DELHI

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## ABSTRACT

**Background:** Emergency contraception is used to prevent pregnancy within 72 hours of unprotected sexual intercourse. Emergency contraceptive pills (ECP) can reduce unwanted pregnancy and unsafe abortions. This study was carried out among college students to assess knowledge and attitude practices regarding emergency contraceptive pills.

**Methods:** The study was conducted among 220 female college students. A pretested questionnaire was used as the tool for the study.

**Results:** 90% of the subjects were aware of emergency contraception pills. Television and internet was the major source of information regarding ECP. However, only 41% correctly knew about the timing when these pills should be taken i.e. within 72 hours of unprotected intercourse. 38% of the women had a favourable attitude towards the use of ECP. Almost 10% had the misconception that ECP can be used to induce abortion. 12.7% women had used ECP in the past 1 year. The most common side effects reported were nausea and bleeding.

**Conclusion:** Although the awareness about emergency contraceptive pills is quite high but the knowledge regarding the correct timing and usage is poor even among educated women. Apprehensions regarding the side-effects of these pills may limit their use by women. Information should be provided to women about the correct timing, side effects and precautions for using ECP.

**Keywords:** Emergency contraception, Female, Knowledge, College

## INTRODUCTION

Unintended and unplanned pregnancies pose a major challenge to the reproductive health of young adults. The World Health Organization estimates that 8 million unwanted pregnancies occur annually worldwide. Around 42 million abortions take place every year, 20 million of them are unsafe. Almost 97% of the overall unsafe abortions take place in the developing world. Approximately 13% of pregnancy-related mortality worldwide is due to unsafe abortions.<sup>1, 2</sup>

In India, 78% of the pregnancies are unplanned and at least 25% are unwanted. Every year 11 million abortions take place and at least half of these are unsafe and associated with a high morbidity and mortality. At least 20,000 women are dying annually due to abortion related complications.<sup>3, 4</sup>

Emergency contraception, also known as post-coital pills 'morning-after pills', refers to contraceptive methods that can be used by women to prevent an unwanted pregnancy in the first few days after unprotected intercourse or contracep-

tive accident. The Government of India introduced Emergency Contraceptive Pills (ECP) in the National Family Welfare Programmes in 2003 as one of the strategies to prevent unwanted pregnancies.

Adolescents and young women are at the greatest risk of unintended pregnancy because they are unlikely to see a family planning provider before or immediately after the sexual activity. Therefore, preventing unintended pregnancy among them is an important concern. Knowledge about emergency contraception is particularly important because of high rates of unwanted and teenage pregnancy.

The present study was undertaken among female college students of Delhi to assess their awareness, attitude and apprehensions regarding Emergency contraceptive pills.

### AIMS AND OBJECTIVES

The aim of the present study was to assess the knowledge of college-going female students regarding emergency contraceptive pills (ECPs) and to find out their apprehensions about the same. The study also aimed to find out the frequency and pattern of usage of ECPs by these women.

### MATERIALS AND METHODS

A cross-sectional survey was carried out with a pre-tested questionnaire in a postgraduate educational institute among 220 female students of reproductive age group which comprised of both married and unmarried women. The verbal consent of the participants was taken prior to administration of the questionnaire wherein the nature of study was explained to them. Simple random sampling method was applied to select respondents with the help of random number table. The sample size was calculated by using  $4PQ/L^2$  where P & Q were taken as 0.5 to get the maximum sample size with 7% relative precision and 10% non response rate. Data were entered, coded and analysed using SPSS (Version 18) and presented in percentage with 95% confidence interval.

### RESULTS

All women were in the age group of 20-30 years. All of them had completed their graduation and pursuing their postgraduate degree courses. 55% had sexual relation in the last one month.

**Table 1: Knowledge among the participants regarding Emergency Contraception**

Questions	N (%)	95% C.I.
<b>Have you heard about any pill(s) to prevent pregnancy after unprotected sex? (N=220)</b>		
Yes	199 (90.5)	86.4 - 94.5
No	21 (9.5)	5.7 - 13.4
<b>If Yes, when was the first time you heard about emergency contraceptive pills? (N=199)</b>		
< 6 months	24 (12.1)	7.5 - 16.5
6-11 months	28 (14.1)	9.2 - 18.9
1-5 years	97 (48.7)	41.8 - 55.7
Don't remember	50 (25.1)	19.1 - 31.2
<b>Where did you hear about it? (N=199)</b>		
Clinic/ Health Centre/ Hospital	12 (6.0)	2.7 - 9.3
Friends/ Relative/ Spouse	21 (10.6)	6.3 - 14.8
Newspaper/ Magazines	15 (7.5)	3.9 - 11.2
Radio/ Internet/ Television	143 (71.9)	65.6 - 78.1
Other	8 (4.0)	1.3 - 6.7
<b>Do you know where a woman can obtain emergency contraceptive pills? (N=199)</b>		
Govt Hospital/Health Centre	57 (28.6)	22.4 - 34.9
Private Clinic	80 (40.2)	33.4 - 47.0
Pharmacy/Chemist Shop	139 (69.8)	63.5 - 76.2
Don't know	46 (23.1)	17.3 - 28.9
<b>Would these pills work if there is a menstrual delay? (N=199)</b>		
Yes	17 (8.5)	4.7 - 12.4
No	24 (12.1)	7.5 - 16.6
Don't know	158 (79.4)	73.8 - 85.1
<b>How long after unprotected sex should emergency contraceptive pills be taken? (N=199)</b>		
Within 24 hours	31 (15.6)	10.5 - 20.6
Within 72 hours	81 (40.7)	33.9 - 47.5
Don't know	87 (43.7)	36.8 - 50.6
<b>Can these pills be used for regular contraception? (N=199)</b>		
Yes	18 (9.0)	5.1 - 13.0
No	71 (35.7)	29.0 - 42.3
Don't know	110 (55.3)	48.3 - 62.2
<b>Awareness about the possible concerns with the use of pills. (N=199)</b>		
It may cause health problems	77 (38.7)	31.9 - 45.5
It may hurt the baby if a woman conceives despite taking these pills	48 (24.1)	18.2 - 30.1
It may result in complication to get pregnant in future	67 (33.7)	27.1 - 40.2
Are not effective	30 (15.1)	10.1 - 20.1
Can't say	22 (11.1)	6.7 - 15.4

90% of the women were aware about emergency contraceptive pills i.e. pills to prevent pregnancy after unprotected sex. 49% of those who had heard of these pills have been aware of the same for duration of one year or more. The source of this information for most of them (71%) was

through television/internet followed by relative/friend/spouse (10%).

70% knew that these pills are available at pharmacy/ chemist shops while 40% knew about their availability at private clinics of doctors while a lesser than a third (28%) of the women were aware that these pills are available at govt. health centres and hospitals.

Only 41% women correctly knew about the time interval from unprotected sexual intercourse upto which these pills can be taken i.e. 72 hours. Alarming, 9.6% believed that these pills would also work in case of menstrual delay which can lead to these pills being unsuccessfully used to abort early pregnancies and may cause serious health problems.

Almost a third of the women had apprehensions regarding possible health problems(39%) with the use of these pills, side effects to the fetus in case of failure of emergency contraceptive(24%), effectiveness of these pills(15%) and problems in conceiving later on(34%).

**Table 2: Attitude of the women towards emergency contraceptive pills**

Questions Asked (N=199)	N (%)	95% C.I.
<b>Do you think you would ever use emergency contraceptive pills or recommend it to a friend / relative in case of need?</b>		
Yes	77 (38.7)	31.9 - 45.5
No	48 (24.1)	18.2 - 30.1
Can't say	74 (37.2)	30.5 - 43.9
<b>It may result in more women suffering from STI or AIDS?</b>		
Yes	22 (11.1)	6.7 - 15.4
No	21 (10.6)	6.3 - 14.8
Don't know	156 (78.3)	72.7 - 84.1
<b>It may result in casual approach towards sex?</b>		
Yes	98 (49.2)	42.3 - 56.2
No	22 (11.1)	6.7 - 15.4
Can't say	79 (39.7)	32.9 - 46.5

38% of the women showed a positive attitude towards the use of ECPs, replying in the affirmative whether they would ever use the pill themselves or recommend it to a friend/ relative. 37% of the women were not sure of using or recommending ECPs. However, 11.2% also feared that the use of these pills might have more women suffering from sexually transmitted infections/ HIV and almost half (49%) of the women felt that these pills may result in a casual approach towards sex among young girls.

**Table 3: Practices of study subjects regarding emergency contraception**

Questions	N (%)	95% C.I.
<b>Have you ever used emergency contraceptive pill? (N=110)</b>		
Yes	14 (12.7)	6.5 - 18.9
No	96 (87.3)	81.5 - 93.5
<b>How many times have you used this in the last year? (N=14)</b>		
1 time	7 (50.0)	23.8 - 76.2
2 times	4 (28.6)	49.1 - 5.2
>= 3 times	3 (21.4)	6.6 - 42.3
<b>Why did you use it?(N=14)</b>		
Didn't use contraceptive	10 (71.4)	47.8 - 95.1
Condom broke / Slipped	4 (28.6)	49.1 - 5.2
<b>What side effects did you experience with emergency contraceptive pills?(N=14)</b>		
Nausea/ Vomiting	11 (78.6)	57.1 - 98.9
Bleeding	3 (21.4)	6.6 - 42.3
None	-	-
<b>Who recommended it?(N=14)</b>		
Friend/ Relative	6 (42.9)	16.9 - 68.8
Spouse/ Partner	5 (35.7)	10.6 - 60.8
Radio/ Television	3 (21.4)	6.6 - 42.3

A total of 14 (12.7%) women had used ECPs in the last year. 7 women had used once, 4 had used twice and 3 had used it for 3 or more times in the last one year. 10 women (71.4%) used it because no contraceptive was used before/ during coitus while 4 (28.6%) used ECPs as condom tore or slipped off during coitus.

The most common side-effects reported after use of ECPs were nausea (78.6 %) and bleeding (21.4%).

Among those having used ECPs, 3 (21.4%) used it based on their knowledge from TV, 5 (35.7%) on recommendation of spouse/partner and 6 (42.9%) on recommendation of a friend/relative.

## DISCUSSION

The awareness regarding emergency contraceptive pills among the students (90%) is quite similar to that reported by Relwani N, Saoji A et al<sup>5</sup> among engineering students in Nagpur city while it is much more than reported by Puri S, Bhatia V et al among college students in Chandigarh (7.3%)<sup>6</sup>. However, almost no awareness about emergency contraception has been reported by Tripathi R et al<sup>7</sup> among abortion seekers at family planning clinic in Delhi. This may be due to the reason that the study population consists of graduate students who are more exposed to various media and hence most of

them know about ECPs and the source of this information for most of them (71%) was through television/internet. However Relwani N et al<sup>5</sup> have reported mass media and internet to be the source of information among 90% of the students. The awareness about where these pills are available is more in the present study (70%) than reported in the study by Relwani N et al<sup>5</sup> in Nagpur where 57% of girls knew that these pills are available at retail outlets.

Although the knowledge regarding the correct time interval from unprotected sexual intercourse upto which these pills can be taken i.e. 72 hours is better in the current study (41%) than reported by Puri S and Bhatia V et al<sup>6</sup> (14.1%), more than half of these women are not aware this fact which makes these women more susceptible for consumption of these pills at incorrect time and puts them at risk of unwanted pregnancies.

38% of the women showed a positive attitude towards the use of ECPs which is similar to the attitude of female nursing staff in Sikkim as reported by Rahaman H, Renjhen P et al<sup>8</sup> while it is much less favourable than reported by Relwani N et al<sup>5</sup> where more than 70% students agreed or strongly agreed that they would either themselves use or recommend emergency contraceptive pills in case of need.

A total of 14 (12.7%) women had used ECPs in the last year. 7 women had used once, 4 had used twice and 3 had used it for 3 or more times in the last one year. Relwani N et al<sup>5</sup> have reported 5.7% of the girls as having used ECPs in the past. The use amongst women in the present study may have been higher due to the inclusion of both married and unmarried subjects in the study. Most of them used ECPs on the recommendation of a friend or relative thereby emphasising the role of family and friends in choosing health care services. Many women had apprehensions regarding the side effects of ECP which could lead to non-usage of ECP even if needed by these women in the future.

## CONCLUSION

Although awareness about emergency contraceptive pills is high, the knowledge about the correct timing, side-effects of ECP is poor and misconception is high among these students. The women have apprehensions regarding ECP and despite widespread availability for several years, the method is still underused. Strategies to promote ECP use should be focused on spreading accurate information.

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